

**Figure 1**

Polynucleotide sequence of Human BMP2A gene (gi: 179501 and 4557368) (SEQ ID NO:1)  
(Coding sequence: 324 – 1514)

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5      1  ggggacttct tgaacttgca gggagaataa cttgcgccacc ccactttgcg cgggtgcctt
      61  tgccccagcg gagcctgctt cgccatctcc gagccccacc gccctccac tcctcggcct
     121  tgccccgacac tgagacgctg ttcccagcgt gaaaagagag actgcgcggc cggcaccggg
     181  gagaaggagg aggcaaagaa aaggaacgga cattcgggcc ttgcccagg tcctttgacc
    241  agagtttttc catgtggacg ctctttcaat ggacgtgtcc ccgctgtctt cttagacgga
    301  ctgcggtctc ctaaaggctg accatgggtg ccgggacccg ctgtcttcta gcgttgctgc
    361  ttccccaggt cctcctgggc ggcgcggctg gcctcgttcc ggagctgggc cgaggaagt
    421  tcgcgggcgc gtcgtcgggc cgccctcat ccagccctc tgacgaggtc ctgagcgagt
    481  tcgagttgcg gctgctcagc atgttcggcc tgaaacagag acccaccccc agcagggacg
    541  ccgtgggtgcc cccctacatg ctagacctgt atcgcaggca ctgaggtcag ccgggctcac
    601  ccgccccaga ccaccggttg gagaggcgag ccagccgagc caaactgtg cgcagcttcc
    661  accatgaaga atctttggaa gaactaccag aaacgagtg gaaaacaacc cggagattct
    721  tctttaattt aagttctatc ccacaggagg agtttatcac ctgagcagag cttcaggttt
    781  tccgagaaca gatgcaagat gctttaggaa acaatagcag tttccatcac cgaattaata
    841  tttatgaaat cataaaacct gcaacagcca actcgaaatt ccccgtgacc agacttttgg
    901  acaccagggt ggtgaatcag aatgcaagca ggtgggaaag ttttgatgtc acccccgctg
    961  tgatgcggtg gactgcacag ggacacgcca accatggatt cgtggtggaa gtggccact
   1021  tggaggagaa acaagggtgc tccaagagac atgttaggat aagcaggtct ttgcaccaag
   1081  atgaacacag ctggtcacag ataaggccat tgctagtaac ttttggccat gatggaaaag
   1141  ggcacacctc ccacaaaaga gaaaaacgtc aagccaaaca caaacagcgg aaacgcctta
   1201  agtccagctg taagagacac cttttgtacg tggacttcag tgacgtgggg tggaaatgact
   1261  ggattgtggc tccccgggg tatcacgcct ttactgcca cggagaatgc cttttcctc
   1321  tggctgatca tctgaactcc actaatcatg ccattgttca gacgttggtc aactctgtta
   1381  actctaagat tcctaaggca tgctgtgtcc cgacagaact cagtgtatc tcgatgctgt
   1441  accttgacga gaatgaaaag gttgtattaa agaactatca ggacatggtt gtggagggtt
   1501  gtgggtgtcg ctggtacagc aaaattaaat acataaatat atatata

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**Figure 2**

Polypeptide sequence of human BMP2A (SEQ ID NO:2 = translation of SEQ ID NO:1)

5           1    MVAGTRCLLA LLLPQVLLGG AAGLVPELGR RKFAAASSGR  
          41   PSSQPSDEVL SEFELRLLSM FGLKQRPTPS RDAVVPPYML  
          81   DLYRRHSGQP GSPAPDHRLE RAASRANTVR SFHHEESLEE  
         121   LPETSGKTTR RFFFNLSIP TEEFITSDEL QVFREQMQDA  
         161   LGNNSSFHHR INIYEIIKPA TANSKFPVTR LLDTRLVNQN  
10       201   ASRWESFDVT PAVMRWTAQG HANHGFEVVEV AHLEEKQGVV  
         241   KRHVRISRSL HQDEHSWSQI RPLLVTFGHD GKGHPLHKRE  
         281   KRQAKHKQRK RLKSSCKRHP LYVDFSDVGW NDWIVAPPGY  
         321   HAFYCHGECF FPLADHLNST NHAIVQTLVN SVNSKIPKAC  
         361   CVPTELSAIS MLYLDENEKV VLKNYQDMVV EGCGR  
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**Figure 3**  
Results of a loss of function validation experiment

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